

WHAT IS CLAIMED IS:

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1. A communication control method of controlling packet communication between a transmitting communication apparatus and a receiving communication apparatus, said method comprising the steps of:

10 transmitting to the receiving communication apparatus from the transmitting communication apparatus a plurality of packets in a consecutive manner; and when packets of the plurality of packets transmitted from the transmitting communication apparatus to the receiving communication apparatus are consecutively lost, reporting to the transmitting communication apparatus from the receiving communication apparatus the number of the consecutively lost packets.

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2. The communication control method as claimed in claim 1, further comprising the step of:

25 retransmitting to the receiving communication apparatus from the transmitting communication apparatus the lost packets in a consecutive manner.

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3. The communication control method as claimed in claim 1, further comprising the step of:

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determining that the receiving communication apparatus has not received the consecutively lost packets based on the report of the number of the consecutively lost packets.

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4. The communication control method as claimed  
10 in claim 1, further comprising the step of:

retransmitting to the receiving communication apparatus from the transmitting communication apparatus the consecutively lost packets in a consecutive manner based on the report of the number of the consecutively  
15 lost packets.

5. The communication control method as claimed  
20 in claim 1, wherein the step of reporting further reports order information of a first packet of the consecutively lost packets.

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6. The communication control method as claimed  
in claim 5, further comprising the step of:

30 determining that the receiving communication apparatus has not received the consecutively lost packets based on the order information and the number of the consecutively lost packets.

5           7. The communication control method as claimed  
in claim 5, further comprising the step of:

10           retransmitting to the receiving communication  
apparatus from the transmitting communication apparatus  
the consecutively lost packets in a consecutive manner  
based on the order information and the number of the  
consecutively lost packets.

15           8. The communication control method as claimed  
in claim 1, further comprising the step of:

20           reporting to the transmitting communication  
apparatus from the receiving communication apparatus a  
free area in a receiving buffer, and

              wherein the step of transmitting a plurality of  
packets transmits in a consecutive manner a plurality of  
packets that can be stored in the receiving buffer.

25           9. The communication control method as claimed  
in claim 1, wherein the packet communication uses window  
30           control of the TCP protocol.

10. A communication control method of  
controlling packet communication between a transmitting  
communication apparatus and a receiving communication  
apparatus, said method comprising the steps of:  
5 transmitting to the receiving communication  
apparatus from the transmitting communication apparatus a  
plurality of packets in a consecutive manner; and  
when packets of the plurality of packets  
10 transmitted from the transmitting communication apparatus  
to the receiving communication apparatus are consecutively  
lost, retransmitting to the receiving communication  
apparatus from the transmitting communication apparatus  
the consecutively lost packets in a consecutive manner.

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11. The communication control method as claimed  
20 in claim 10, further comprising the steps of:  
reporting to the transmitting communication  
apparatus from the receiving communication apparatus a  
free area in a receiving buffer,  
wherein the step of transmitting a plurality of  
25 packets transmits in a consecutive manner a plurality of  
packets that can be stored in the receiving buffer.

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12. The communication control method as claimed  
in claim 10, wherein the packet communication uses window  
control of the TCP protocol.

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13. A communication system, comprising:  
a receiving communication apparatus including a  
packet lost reporting part; and  
a transmitting communication apparatus including  
10 a packet transmitter,  
wherein said packet transmitter transmits to  
said receiving communication apparatus a plurality of  
packets in a consecutive manner, and  
wherein said packet lost reporting part reports  
15 to said transmitting communication apparatus, when packets  
of the plurality of packets transmitted to the receiving  
communication apparatus are consecutively lost, the number  
of the consecutively lost packets.

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14. The communication system as claimed in claim  
13,  
25 wherein the transmitting communication apparatus  
further includes a packet retransmitter, and  
wherein said packet retransmitter retransmits to  
the receiving communication apparatus the consecutively  
lost packets in a consecutive manner.

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15. The communication system as claimed in claim  
13, wherein the transmitting communication apparatus  
determines that the receiving communication apparatus has  
not received the consecutively lost packets based on the  
5 report of the number of the consecutively lost packets.

10 16. The communication system as claimed in claim  
13,

wherein the transmitting communication apparatus  
further includes a packet retransmitter, and

15 wherein said packet retransmitter retransmits to  
the receiving communication apparatus the consecutively  
lost packets in a consecutive manner based on the report  
of the number of the consecutively lost packets.

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17. The communication control method as claimed  
in claim 13, wherein the packet lost reporting part  
further reports order information of a first packet of the  
25 consecutively lost packets.

30 18. The communication system as claimed in claim  
17, wherein the transmitting communication apparatus  
determines that the receiving communication apparatus has  
not received the consecutively lost packets based on the

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order information and the number of the consecutively lost packets..

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19. The communication system as claimed in claim 17,

wherein the transmitting communication apparatus 10 further includes a packet retransmitter, and

wherein said packet retransmitter retransmits to the receiving communication apparatus the consecutively lost packets in a consecutive manner based on the order information and the number of the consecutively lost 15 packets.

20 20. The communication system as claimed in claim 13,

wherein the receiving communication apparatus reports to the transmitting communication apparatus a free area in a receiving buffer, and

25 wherein the packet transmitter transmits in a consecutive manner a plurality of packets that can be stored in the receiving buffer.

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21. The communication system as claimed in claim 13, wherein the transmitting communication apparatus and

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the receiving communication apparatus perform packet communication using window control of the TCP protocol.

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22. A communication system, comprising:  
a receiving communication apparatus; and  
a transmitting communication apparatus including  
10 a packet transmitter and a packet retransmitter,  
wherein said packet transmitter transmits to the  
receiving communication apparatus a plurality of packets  
in a consecutive manner, and  
wherein said packet retransmitter retransmits to  
15 the receiving communication apparatus, when packets of the  
plurality of packets transmitted to the receiving  
communication apparatus are consecutively lost, the  
consecutively lost packets in a consecutive manner.

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23. The communication system as claimed in claim  
22,  
25 wherein the receiving communication apparatus  
reports to the transmitting communication apparatus a  
free area in a receiving buffer, and  
wherein the packet transmitter transmits in a  
consecutive manner a plurality of packets that can be  
30 stored in the receiving buffer.

24. The communication system as claimed in claim  
22, wherein the transmitting communication apparatus and  
the receiving communication apparatus perform packet  
5 communication using window control of the TCP protocol.

10           25. A communication apparatus for receiving  
packets transmitted from a transmitting communication  
apparatus and reporting information to the transmitting  
communication apparatus, said communication apparatus  
comprising:

15           a packet lost reporting part that reports to the  
transmitting communication apparatus, when packets  
transmitted from the transmitting communication apparatus  
are consecutively lost, the number of the consecutively  
lost packets.

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25           26. The communication apparatus as claimed in  
claim 25, wherein the packet lost reporting part further  
reports order information of a first packet of the  
consecutively lost packets.

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27. The communication apparatus as claimed in

claim 25, further comprising:

a free area reporting part that reports to the transmitting communication apparatus a free area in a receiving buffer.

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28. The communication apparatus as claimed in  
10 claim 25, wherein the communication apparatus performs  
packet communication using window control of the TCP  
protocol.

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29. A communication apparatus for transmitting  
packets to a receiving communication apparatus and  
receiving information from the receiving communication  
20 apparatus, said communication apparatus comprising:

a packet transmitter that transmits a plurality  
of packets to the receiving communication apparatus in a  
consecutive manner; and

a packet retransmitter that retransmits to the  
25 receiving communication apparatus in a consecutive manner,  
when packets transmitted to the receiving communication  
apparatus are consecutively lost, the consecutively lost  
packets based on order information of a first packet of  
the lost packets and the number of the lost packets.

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30. The communication apparatus as claimed in  
claim 29, wherein the packet transmitter transmits in a  
consecutive manner a plurality of packets that can be  
stored in a receiving buffer of the receiving  
5 communication apparatus.

10 31. The communication apparatus as claimed in  
claim 29, wherein the communication apparatus performs  
packet communication using window control of the TCP  
protocol.